



C3P and NASA PROGRAMME OVERVIEW

Drivers

- Environmental/health legislation
 - Aerospace National Emissions Standard for Hazardous Air Pollution (NESHAP) took affect in September 1998
 - 14 draft regulations have potential systems and facilities impacts
 - Clean Water Act
 - Lowers heavy metals limits in waste water some rulings beyond compliance capability
 - Metal Parts and Machinery processes ruling lowers limits

Chrome

from 2.77 ppm to 0.25 ppm

Lead

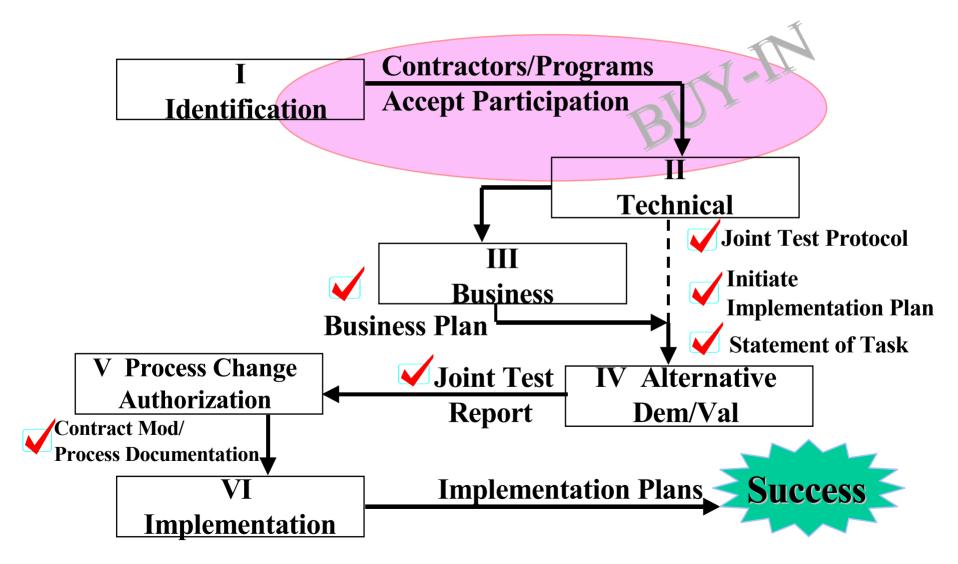
from 0.69 ppm to 0.04 ppm

- Executive Order 13123 on Global Warming, 3 Jun 1999
- Industrial modernization is pressuring environmental programs and causing material obsolescence concerns
- Overseas operations facing international environmental efforts
 - Processes in other countries may become incompatible w/U.S. systems
- To learn and support "global" sustainable development



Joint NASA/Dept of Defense Project Methodology





Key Initiative Common Needs = Shared Solutions

New "Environmentalism" coming from Europe and Japan

- Successful with Canadians in alternative chrome plating project
- Successful in leveraging European efforts in hand-held laser
- Common needs to address Lead-Free solder and Volatile Organic Chemical reductions

Partnerships with Industry today providing value tomorrow

Information Exchange

- Cross-feed of project technical information and alternative material development to reduce duplication of effort, cost, and technical risks
- Attending conferences and symposiums presenting papers and staffing exhibit booth (project handouts)
- Use of common methodology provides basis for shared understanding and project validation and test results common implementation

Result - Provides for continued expansion of a shared knowledge network

NASA/Portugal Agreement

- ✓ Agreement signed 18 September 02
- ✓ Supported by the Prime Minister
- ✓NASA AP2 Program Office as facilitator
- ✓ C3P establishing infrastructure and developing strategic plans
- ✓ Preliminary project selection expected early 03



NASA/Portugal Agreement

Integrating ESH considerations in acquisition, manufacturing, and maintenance processes/procedures

Information sharing on integrating ESH considerations into life cycle analysis

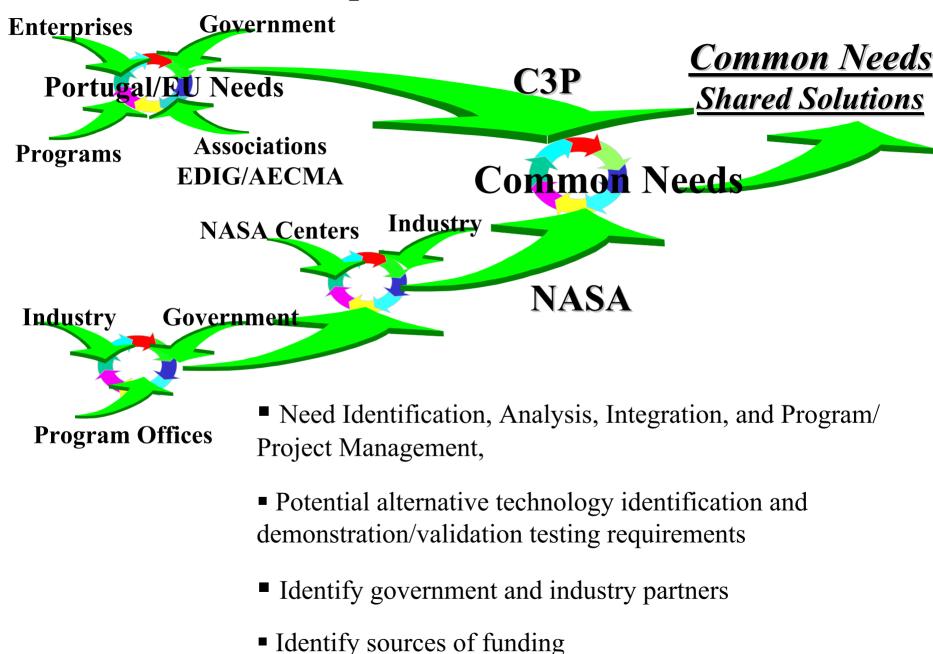
Environmental risk assessments and the use of information networks

Information sharing programs on environmental dispersal and health Effects

Information sharing on EU regulations and their potential impact

Integrating safety and occupational health considerations into environmental program

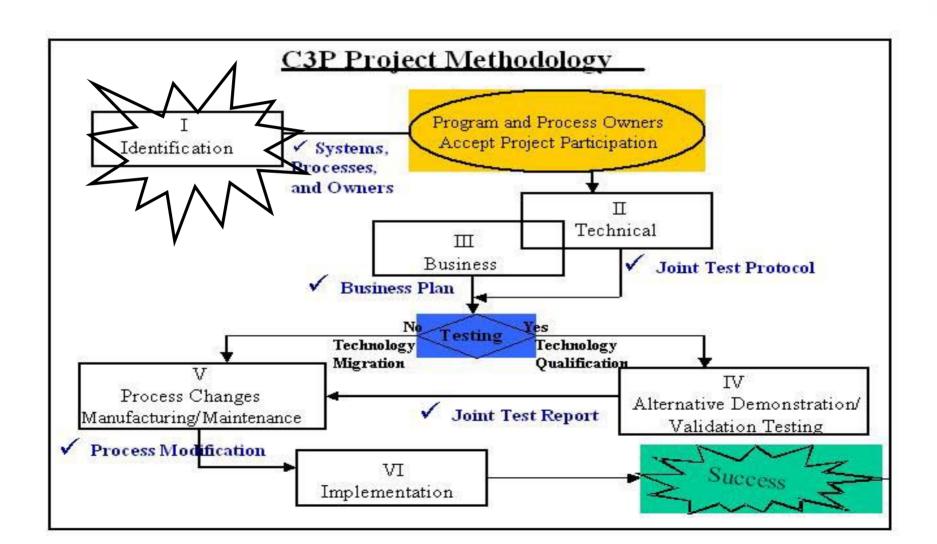
September 18, 2002 - TODAY

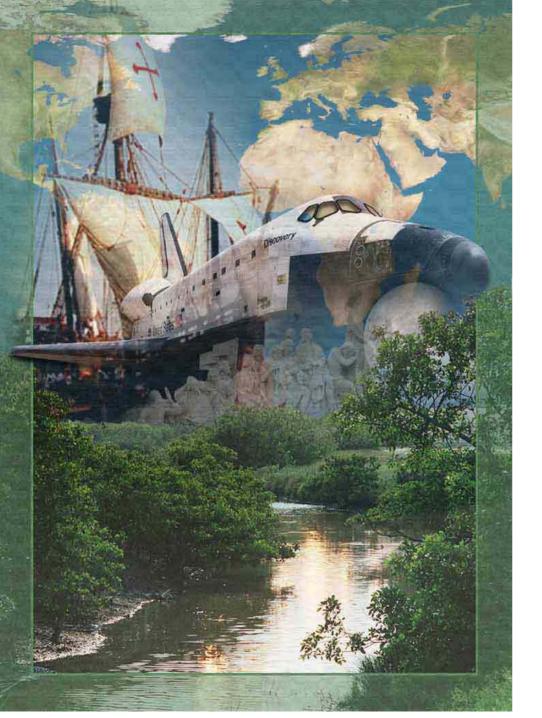


C3P Project Methodology



Centro Para Prevenção da Poluição (C3P)
(Center for Pollution Prevention)





It is now our time for Discovery -

For new partnerships
For common needs
For shared solutions
For new technology